



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,152	12/29/2000	Stephen S. Jackson	2204/A84US	8441
2101	7590	09/28/2004	EXAMINER	
BROMBERG & SUNSTEIN LLP 125 SUMMER STREET BOSTON, MA 02110-1618			PHUNKULH, BOB A	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,152

Applicant(s)

JACKSON, STEPHEN S.

Examiner

Bob A. Phunkulh

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

BOB PHUNKULH
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/2/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-9, 14-20, 22-25, 30-35, 37-39, 44-47 are rejected under 35

U.S.C. 102(e) as being anticipated by Cole et al. (US 6,348,874), hereinafter Cole.

Regarding claim 1, Cole discloses a central network device (the communication device 12, see figures 1-4) for use in a power integrated local area network, the central network device comprising:

an electrochemical power source (Vs see figure 1 or power supply 16, see figure 3); and

a network interface configured to communicate with a plurality of member network devices (nodes 20, see figures 1 and 3; and col. 3 lines 45-55) and to deliver power, from energy stored by the electrochemical power source, to at least one selected member network device, the selected member network device being capable of accepting power over the power integrated local area network.

Regarding claim 2, Cole discloses a central network device according to claim 1, wherein the power integrated local area network is configured to execute the Ethernet protocol (see col. 2 lines 37-44).

Regarding claim 3, Cole discloses a central network device according to claim 1, further comprising networking logic chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 3 lines 12-23).

Regarding claim 4, Cole discloses a central network device according to claim 1, wherein the power integrated local area network is configured to operate according to a Power Ethernet Standard (see col. 2 lines 37-44).

Regarding claim 6, Cole discloses a central network device according to claim 1, further comprising a housing shared by the electrochemical power source and the network interface (see figure 3).

Regarding claim 7, Cole discloses a central network device according to claim 1, further comprising power rectification circuitry (Voltage regulator 14 in figure 2 or Power supply 16 in figure 3, see col. 3 lines 39-55).

Regarding claim 8-9, Cole inherently discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 2 line 65 to col. 3 line 5).

Regarding claim 14, Cole discloses a central network device according to claim 1, wherein the plurality of member network devices comprises a network appliance (see col. 3 lines 5-11).

Regarding claim 15, Cole discloses a central network device, wherein the network appliance comprises (remote node 20, see figures 1 and 5):

a peripheral device configured to transmit data to the power integrated local area network (see figures 1 and 5);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network; and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface (see col. 3 lines 5-11).

Regarding claim 16, Cole discloses a power integrated local area network, the network comprising:

a plurality of member network devices (nodes 20, see figures 1 and 3; and col. 3 lines 45-55); and

a central network device configured to communicate with the plurality of member network devices, and to deliver power, from energy stored in an electrochemical power source, to at least one selected member network device that is capable of accepting power from the central network device (Vs see figure 1 or power supply 16, see figure 3).

Regarding claim 17, Cole discloses a central network device for use in a power integrated local area network, the central network device comprising:

networking logic, configured to communicate with a plurality of member network devices (nodes 20, see figures 1 and 3; and col. 3 lines 45-55); and

electrochemical power source means for providing power to at least one selected member network device, the selected member network device being capable of accepting power over the power integrated local area network (Vs see figure 1 or power supply 16, see figure 3).

Regarding claim 18, Cole discloses a central network device according to claim 17, wherein the power integrated local area network is configured to execute the Ethernet protocol (see col. 2 lines 37-44).

Regarding claim 19, Cole discloses a central network device according to claim 17, wherein the networking logic is chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 3 lines 12-23).

Regarding claim 20, Cole discloses a central network device according to claim 17, wherein the power integrated local area network is configured to operate according to a Power Ethernet Standard (see col. 2 lines 37-44).

Regarding claim 22, Cole discloses a central network device according to claim 17, further comprising a housing shared by the electrochemical power source and the network interface (see figure 3).

Regarding claim 23, Cole discloses a central network device according to claim 17, further comprising power rectification circuitry (Voltage regulator 14 in figure 2 or Power supply 16 in figure 3, see col. 3 lines 39-55).

Regarding claims 24-25, Cole inherently discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 2 line 65 to col. 3 line 5).

Art Unit: 2661

Regarding claim 30, Cole discloses a central network device according to claim 17, wherein the plurality of member network devices comprises a network appliance (see col. 3 lines 5-11).

Regarding claim 31, Cole discloses a central network device, wherein the network appliance comprises (remote node 20, see figures 1 and 5):

a peripheral device configured to transmit data to the power integrated local area network (see figures 1 and 5);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network; and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface (see col. 3 lines 5-11).

Regarding claim 32, Cole discloses a method for powering a local area network using power from a central network device, the method comprising:

selecting at least one member network device capable of accepting power over the local area network (see figures 1 and 3); and

providing power, from energy stored by an electrochemical power source,

Art Unit: 2661

to the at least one selected member network device (see col. 3 lines 45-55).

Regarding claim 33, Cole discloses a method according to claim 32, wherein the method comprises: executing the Ethernet protocol on the local area network (see col. 2 lines 37-44).

Regarding claim 34, Cole discloses a method according to claim 32, wherein the method comprises: housing the electrochemical power source in a common enclosure with networking logic chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 3 lines 12-23).

Regarding claim 35, Cole discloses a method according to claim 32, wherein the method comprises: operating the local area network according to a Power Ethernet Standard (see col. 2 lines 37-44).

Regarding claim 37, Cole discloses method according to claim 32, wherein the method comprises: housing rectification circuitry in a common enclosure with the electrochemical power source (Voltage regulator 14 in figure 2 or Power supply 16 in figure 3, see col. 3 lines 39-55).

Regarding claims 38-39, Cole inherently discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 2 line 65 to col. 3 line 5).

Regarding claim 44, Cole discloses a method according to claim 32, wherein the method comprises: delivering power from the electrochemical power source to a network appliance (see col. 3 lines 5-11).

Regarding claim 45, Cole discloses the network appliance comprises (remote node 20, see figures 1 and 5):

a peripheral device configured to transmit data to the power integrated local area network (see figures 1 and 5);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network; and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface (see col. 3 lines 5-11).

Regarding claim 46, Cole discloses a central network device for use in a power integrated local area network, the central network device comprising:

a housing;

networking logic, enclosed by the housing, configured to communicate with a plurality of member network devices (switching circuit 18 and microprocessor 22, see figure 4);

an electrochemical power source, sharing the housing with the networking logic, for storing energy to provide power for the member network devices (see power supply 16, figure 3; and switching circuit 18, figure 4); and

rectification circuitry, sharing the housing with the networking logic and the electrochemical power source(voltage regulator 14, figure 2; power supply 16, figure 3);

wherein the power integrated local area network is configured to execute the Ethernet protocol(see col. 2 lines 36-44).

Regarding claim 47, Cole discloses a method for powering a local area network using power from a central network device, the method comprising:

housing an electrochemical power source in a common enclosure with networking logic configured to communicate with a plurality of member network devices (see power supply 16, figure 3; and switching circuit 18, figure 4);

rectifying primary power that is delivered to the central network device, to charge the electrochemical power source (voltage regulator 14, figure 2; power supply 16, figure 3);

delivering power stored by the electrochemical power source to at least one of the plurality of member network devices (see col. 3 lines 45-55); and
executing the Ethernet protocol on the local area network (see col. 2 lines 36-44).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 21, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole in view of Hutchison et al (US 5,838,989), hereinafter Hutchison.

Regarding claims 5, 21, 36, Cole fails to disclose the central network device being configured to deliver power and data through an MDI-X compliant port.

Hutchison, on the other hand, discloses media dependent interface (MDI-X) is widely used in Ethernet or 10Base-T network (see col. 8 lines 31-46).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made provides the teaching of Hutchison in the system taught by Cole in order to comply with the standard.

Claims 10-13, 26-29, 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole.

Regarding claims 10-12, 26-28, 40-42, Cole fails to explicitly disclose the power supply is rechargeable battery and is configured to charged by an AC to DC converter.

However, it would have been obvious to one having ordinary skill in the art at the time of invention was made to provides the communication device 12 with rechargeable battery for rechargeable batteries are widely available and used for providing power to electronic devices.

Regarding claims 13, 29, 43, Cole fails to disclose a central network device according to claim 1, wherein the electrochemical power source is configured to provide backup power to the at least one selected member network device in the event of an interruption of delivery of primary power to the central network device.

However, it would have been obvious to one having ordinary skill in the art at the time of invention was made to provides the communication device 12 with a backup power supply i.e. (battery) in order to avoid power interruption caused by unforeseen reasons i.e. environment effects.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Art Unit: 2661

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

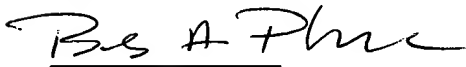
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor **Kenneth Vanderpuye**, can be reach on **(571) 272-3078**. The fax phone number for this group is **(703) 872-9306**.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh



TC 2600

Art Unit 2661

September 23, 2004

BOB PHUNKULH
PRIMARY EXAMINER